Department of Education and Culture

Apprenticeship Training Division

Annual Report
April 1, 1998 - March 31, 1999

TABLE OF CONTENTS

Index i

Introduction 1

Apprenticeship Training Division 3
- Mandate 3
- Statutory Authority 3
- Division Description 3
- Financial Highlights 3

Major Activities / Responsibilities of the Division 4

Human Resources 5

Support Services 5
- Client Services 5
- Enforcement 5
- Program Services 5
- Organizational Chart 6
- List of Employees 7

Frequently Asked Questions 8
- What is apprenticeship? 8
- Why is apprenticeship important? 8
- How do you become an apprentice? 8
- What are apprentices paid? 8
- What are the qualifications needed to become an apprentice? 8
- What is a designated trade? 8
- How many trades are designated in Nova Scotia? 9
- What is Compulsory Certification? 9
- What is the Red Seal Program? 9

Client Profile 10
- Apprentice 10
- Improver 10
- Trade Qualifiers 10
- Pre-Employment Graduate 10
- Certificate of Qualification Holder 10
- Employers 10
- Organizations 10

Statistical Data 11
New Registrations 11
Cancellations 11
Reinstatements 11
Completions (Graduates) of the Program 12
Technical Training 13
Active Apprentices at Year End 13
Section 19 (Trade Qualifiers) Applications 14
Examinations Written 15
Certificates of Qualification Issued 16

Partnerships and Stakeholders 17
Provincial Apprenticeship Board 17
Canadian Council of Directors of Apprenticeship (CCDA) 18
Interprovincial Standards Examination Committee (ISEC) 18
Techsploration 19
Skills Canada Nova Scotia 19
Pictou Landing First Nations Women's Carpenter Program 20
Joint Registration Agreements 21

Initiatives 22
Accreditation 22
AIMS to ACIS 22
Alternate Delivery of Apprenticeship Training 24
Apprenticeship Provincial Examination Development 24
Curriculum Development and Validation 25
Curriculum - Industry Validation Schedule 26
Curriculum development/renewal 27
Gas Fitter Training and Certification 27
Progress Record Book Development 29
Trades Under Consideration for Designation 29

Public Relations Activities 30
Newsletter 30
Promotional Material 30
Toll Free Telephone Line 30
Website 30

Conclusion 31

Appendix 1 32

Appendix 2 33

Appendix 3 34

Introduction

The 1998 - 1999 Annual Report of the Apprenticeship Training Division, Department of Education and Culture is a combined effort of the staff of the Division. The report points to significant growth and achievement in Nova Scotia's Apprenticeship Program and attests to the abilities, energies, and commitment of the employees of the Division.

In 1998, the Division began to focus its efforts on curriculum renewal, progress examination development, interprovincial examination development, and reformatting the delivery of apprenticeship training. During the year, curriculum renewal was undertaken in nineteen (19) apprenticeship programs. In fourteen (14) of these programs, the curricula has been distributed to diverse industry groups for validation. Of the fourteen (14) distributed, five (5) curriculum documents have been approved and it is anticipated that the remaining nine (9) will receive industry approval prior to December 1999. Five (5) of the curriculum initiatives are a joint venture of the four Atlantic Provinces. When complete, the Provinces of Nova Scotia, Prince Edward Island, Newfoundland, and New Brunswick will share a common curriculum document and common Progress Record Books in five (5) Apprenticeship Programs. This will provide easier mobility for apprentices who may travel within the Atlantic Provinces in their chosen occupations.

The curriculum renewal initiative is possible through the cooperation of our training partners, Nova Scotia Community College and University College of Cape Breton, and those industry partners who have generously given of their time and resources to provide input and feedback.

The Apprenticeship Training Division is responsible for the development and continuing maintenance of 113 examinations. These include 55 certification examinations and 58 progress examinations. In 1998 - 1999, the Division completed renewal of six (6) of the progress examinations and participated in renewal of nine (9) interprovincial examinations which are used for certification in Nova Scotia. All of these initiatives involve extensive industry consultation and cooperation.

In concert with the curriculum and examination renewal initiatives, the Department of Education and Culture, through the Apprenticeship Training Division, partnered with Human Resources Development Canada and the Nova Scotia Community College to reformat apprenticeship training for alternate delivery methods. The intent in providing alternate methods of delivering apprenticeship training is to create more training options for employers and employees. The goal is to make apprenticeship training more flexible, more accessible, more accommodating, and more affordable to a greater number of Nova Scotians.

By reformatting training into a course-based system, apprentices can take portions of training as they and their employers require it. An added value to reformatting apprenticeship training is the ability to offer training via the Internet through the Virtual Campus. Virtual delivery became a reality in September 1998, placing Nova Scotia on the information technology map as an innovator in the provision of apprenticeship training. By March 31, 1999, the number of apprentices registered for training through the Virtual Campus stood at 179. Today, 229 apprentices access training through Internet delivery on the Virtual Campus.

During the past year, the Provincial Apprenticeship Board has recommended one new trade for designation, Locksmith, placing the number of designated trades in the province of Nova Scotia at fifty-two (52). In addition, with the impending development of Nova Scotia's natural gas fields, the trade of Gas Fitter has been reactivated to ensure that Nova Scotians are trained to a high standard to better access employment related to the natural gas industry. The Security and Alarm industry has also made a request for designation, but a decision has not yet been communicated to the industry.

Nova Scotia's Apprenticeship Training Division remains very active in the Canadian Council of Directors of Apprenticeship Interprovincial Red Seal Program. This Program provides interprovincial mobility for Nova Scotia tradespersons, thereby providing additional employment opportunities.

Nova Scotia's Apprenticeship Program is growing and it is becoming more attuned to the needs of Nova Scotia industry by providing flexibility in its training while maintaining the highest quality within its training programs. Nova Scotia is a recognized leader in training innovation and has actively pursued partnerships within the Province and throughout Canada.

The goal of the Apprenticeship Training Division is to remain client-centered and to provide the highest calibre of apprenticeship training within an accessible and flexible training environment.

Joe Black

Acting Director
Apprenticeship and Trades Qualifications

Apprenticeship Training Division

Mandate

The mandate of the Apprenticeship Training Division is to manage the Nova Scotia Apprenticeship Program and to provide leadership to ensure that the technical training (theory) and skills training (on-the-job) offered in training institutions and industry is of the highest quality, and is current and relevant to the needs of employers and apprentices in the Province of Nova Scotia.

Statutory Authority

The Statutory Authority for the Apprenticeship Program in Nova Scotia is the *Apprenticeship and Trades Qualifications Act*, 1989. The Act can be found on the World Wide Web at

http://www.gov.ns.ca/legi/legc/statutes/apprenti.htm

Division Description

The Apprenticeship Training Division is responsible for administering the *Apprenticeship and Trades Qualifications Act* and attendant regulations and promoting compliance with the Act through educational awareness. The Division develops and administers standards of training and assessment, including examinations that assess the quality of worksite and technical training programs leading to certification in designated trades.

Financial Highlights

The figures in the following table provide financial information in summary form for the 1998/99 fiscal year.

Fiscal Year 1998/1999	
Expenditures	**Dollars**
Salaries	$1,299,000.00
Operating	$ 797,000.00
Training Costs	$1,700,000.00
Recoveries (Examination and Renewal Fees)	$ (75,000.00)
Total	$3,721,000.00

Major Activities / Responsibilities of the Division

- Registers in excess of 800 apprentices per year in 52 designated trades.
- Maintains records for approximately 3500 active apprentices.
- Maintains contact with 3500 active apprentices and approximately 1500 employers for the purposes of developing training plans and monitoring progress through the Provincial Apprenticeship Program.
- Maintains records of approximately 1500 trade qualifiers.
- Facilitates the process for long time trade practitioners to acquire certification.
- Maintains the Apprenticeship Information Management System (AIMS) for tracking of apprentices and journeypersons.
- Participates in the development of a new Apprenticeship Certification and Information System (ACIS) to replace the current AIMS. The initiative is a partnership between the Provinces of Nova Scotia, New Brunswick, and Manitoba and is scheduled for implementation in September 1999.
- Participates in the development of an Interprovincial Computerized Examination Management System (ICEMS) which will be used as a database storage for Interprovincial examinations. This initiative is a partnership with all provinces/territories in Canada and will be implemented in the Spring of 2000.
- Provides awareness and information sessions for all faculty and students at the Nova Scotia Community College, University College of Cape Breton, and private trades schools.
- Involved in initiatives at the Atlantic Provinces level, including provision for mobility of apprentices and holders of provincial or interprovincial certification, and development of common standards, curriculum, and progress record books.
- Partnership with Nova Scotia Community College and Human Resources Development Canada to develop alternate delivery methods in all apprenticeship programs. Taking advantage of the most current communications technologies, a "Virtual Campus" has been established to provide apprentices access to technical training through the Internet. There are seven (7) programs currently developed with another five (5) to be developed in 1999/2000.
- Curriculum development and renewal continues in nineteen (19) apprenticeship programs. The Apprenticeship Training Division, the Nova Scotia Community College, the University College of Cape Breton, the Virtual Campus, and a joint initiative with the four Atlantic Provinces, makes curriculum renewal possible.
- Examination development is a major commitment of the Division. There are approximately 113 apprenticeship progress and certification examinations requiring regular development and maintenance.
- Participates in the Interprovincial Standards "Red Seal" Program. This is an industry-driven certification program recognized by all provinces and territories in Canada; it is administered by the Canadian Council of Directors of Apprenticeship.
- Develop and implement an accreditation process and procedures.

Apprenticeship Training Division - Human Resources

The staff complement of the Apprenticeship Training division is 30 full-time equivalent positions, as shown in the organizational chart on the following page. The position of Director has been vacant since July, 1997 and has been staffed in an acting capacity since June, 1998. The Division is structured in four distinct sections with different, but interrelated responsibilities.

Support Services - responsible for providing administrative and support services to the Division including clerical, records management, financial and accounting, research and statistical information.

Client Services - responsible for development, maintenance, and administration of examinations, the registration of apprenticeship agreements, providing advice and counselling to apprentices and employers, establishing training plans with clients, and monitoring work places to ensure skills are being acquired in the work environment. The Client Services section has adopted a client-centered approach to work cooperatively and collaboratively with Nova Scotia industry.

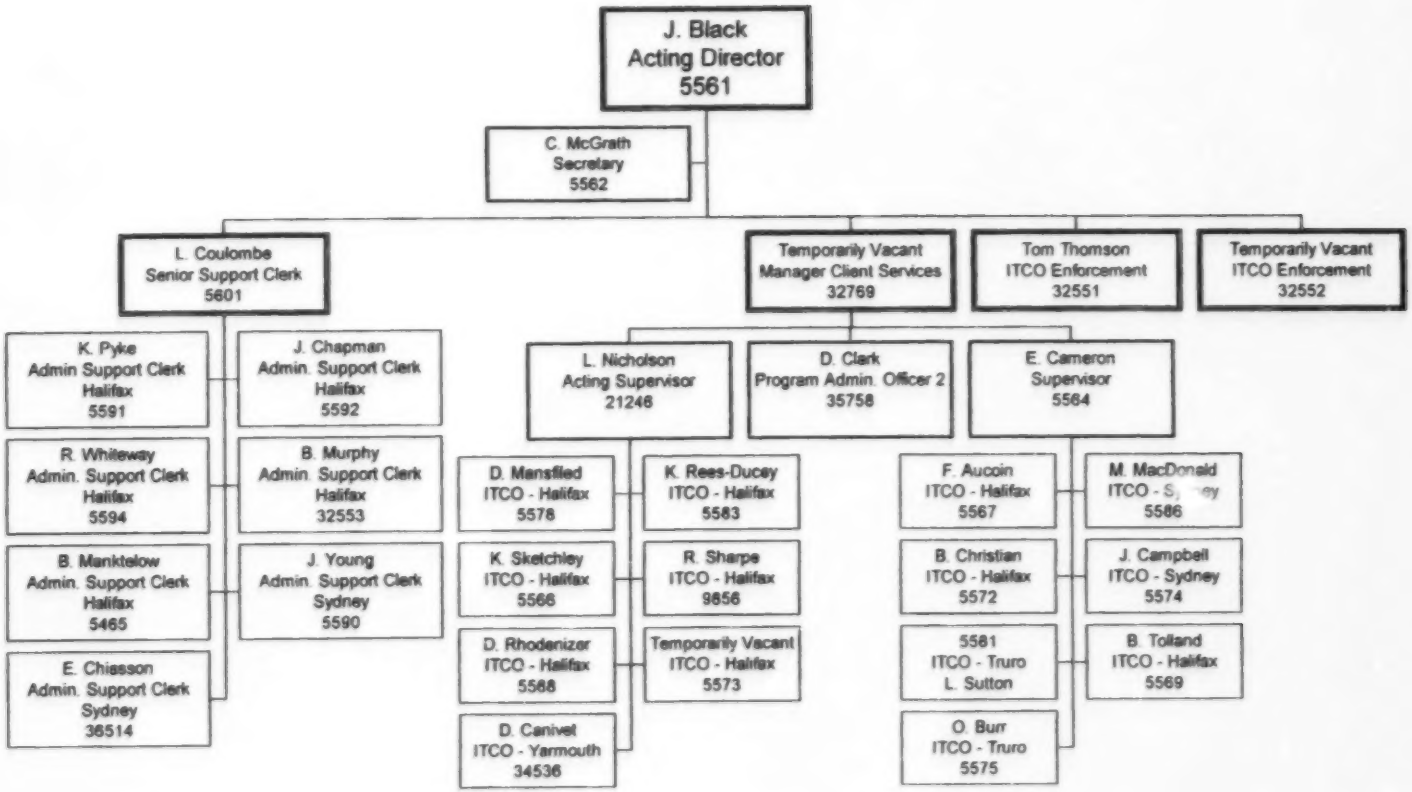
Enforcement - responsible to ensure that Nova Scotia industry and its workers are in compliance with the *Apprenticeship and Trades Qualifications Act* and its attendant regulations. The role of this section is to ensure compliance with the Act through a process of public education. The Enforcement Officers work with employers and employees to assist them to achieve compliance.

Program Services - This small section of the Apprenticeship Training Division is responsible for developing and implementing a credit/accreditation process, coordinating the development of curricula and examinations for each of Nova Scotia's apprenticeship programs, and liaising with Nova Scotia industry to validate training materials. The section also links with apprenticeship partners in Atlantic Canada to harmonize training standards and outcomes. This is one of the key areas where the Apprenticeship Training Division must allocate additional resources to ensure continued growth and efficiencies for the Apprenticeship Program.

Apprenticeship Training Division staff are located at the central office in Halifax or in one of the regional offices in Sydney, Truro and Yarmouth. See list of employees following the organizational chart.

Appendix 2

Apprenticeship Training Division
Organizational Structure



Listing of Employees

Halifax Office:

Dept. of Education & Culture
Apprenticeship Training Division
2021 Brunswick St.
Halifax, NS B3J 2S9
Ph.: (902) 424-5651
Toll Free: 1- 800-494-5651
Fax: (902) 424-0717

Office of the Director
Black, Joseph - Acting Director
McGrath, Carolyn - Secretary

Manager of Client Services
Temporarily Vacant
Enforcement
Thomas, Tommy
Position Vacant

Program Services
Clark, Darlene

Client Services Supervisors
Cameron, Eugene
Nicholson, Leslee

Industrial Training & Certification Officers
Aucoin, Frank
Christian, Blair
Mansfield, Donald
Rees-Ducey, Karen
Rhodenizer, Doyle
Sharpe, Richard
Sketchley, Ken
Tolland, Bruce
Position Vacant

Support Services
Coulombe, Lorraine - Supervisor
Chapman, Judy
Manktelow, Bonny
Murphy, Barry
Pyke, Karen
Whiteway, Roxanne

Sydney Office:

Dept. of Education & Culture
Apprenticeship Training Division
338 Charlotte Street
Sydney, NS B1P 1C8
Ph.: (902) 563-2149
Fax: (902) 563-3491

Industrial Training & Certification Officers
Campbell, John
MacDonald, Malcolm

Support Services
Chaisson, Ellen
Young, Jane

Truro Office:

Dept. of Education & Culture
Apprenticeship Training Division
Suite 3, 60 Lorne St.
Truro, NS B2N 3K3
Ph.: (902) 893-5988
Fax: (902) 893-6104

Industrial Training & Certification Officers
Burr, Oliver
Sutton, Lawrence

Yarmouth Office:

Dept. of Education & Culture
Apprenticeship Training Division
10 Starrs Rd.
Yarmouth, NS B5A 2T1
Ph.: (902) 742-0775
Fax: (902) 742-4628

Industrial Training & Certification Officer
Canivet, Deborah

Frequently Asked Questions

To provide the reader a clearer understanding of the Apprenticeship Program, these frequently asked questions are included.

What is apprenticeship?

Apprenticeship is an agreement between an apprentice, an employer, and the Department of Education and Culture, Apprenticeship Training Division in which an apprentice agrees to work for an employer for a specific length of time in exchange for extensive, supervised on-the-job skills training (practical) and technical training (theory). This provides apprentices the opportunity to earn while they learn. The term of apprenticeship is usually three or four years. Successful completion of the program earns a Certificate of Qualification which recognizes the tradesperson as a skilled journeyperson.

Why is apprenticeship important?

Apprenticeship is the most effective form of occupational training. It produces the type of skilled worker required to fill jobs in our province. Apprenticeship combines up-to-date technical training with practical hands on experience to provide apprentices with excellent employment opportunities.

How do you become an apprentice?

To register as an apprentice, you must be employed in the occupation for a 90 day probationary period and sign an agreement with your employer and the Nova Scotia government. This agreement outlines the terms of your apprenticeship and the responsibilities of the apprentice and employer.

What are apprentices paid?

Apprentices earn 40 percent to 90 percent of the current journeyperson wage rate. Wages increase as each stage of development is successfully completed. These wages are governed by Trade Regulations for each occupation.

What are the qualifications needed to become an apprentice?

To register as an apprentice in the province of Nova Scotia, you must have successfully completed grade 12 or the equivalent and have an employer who is willing to train you in accordance with the Apprenticeship Agreement.

What is a designated trade?

A designated trade is regulated by the Nova Scotia *Apprenticeship and Trades Qualifications Act and General Regulations*. The Act provides for formal apprenticeship training and the issuing of Certificates of Qualification to those who earn journeyperson status.

How many trades are designated in Nova Scotia?

There are 52 designated trades in the province of Nova Scotia. Current statistics show that there are 3568 apprentices actively participating in the Apprenticeship Program. See Appendix 1.

What is Compulsory Certification?

Those employed in a compulsory certified trade must hold a current Certificate of Qualification recognized by the Province of Nova Scotia, or a Certificate of Qualification from another jurisdiction with the Interprovincial Red Seal affixed, or be a registered apprentice, or a registered improver in the Province of Nova Scotia.

What is the Red Seal Program?

The "Red Seal" provides qualified tradespersons the opportunity to practice their trade in any province or territory of Canada where the trade is designated without having to write further examinations. It was established in 1958 to provide greater mobility across Canada for skilled workers. Certified journeypersons are able to obtain a "Red Seal" endorsement on the Certificate of Qualification by successfully completing an Interprovincial Standards Examination.

Client Profile

The clients we serve are numerous and diverse. They include the following:

Apprentice - A person who is employed in a designated trade/occupation under an agreement with an employer and the Government of Nova Scotia. The apprentice agrees to work for the employer in exchange for extensive, supervised, on-the-job experience and technical training. A Certificate of Apprenticeship and a Certificate of Qualification are awarded to the apprentice when the certification examination is successfully completed at the end of the training.

Certificate of Qualification Holder - A tradesperson who currently holds a Certificate of Qualification in one of the 52 designated trades.

Employers - Business and industry partners who have entered into an agreement with an apprentice and the Province of Nova Scotia and have agreed to provide on-the-job skills training (practical).

Improver - A person who is currently employed in an occupation and through prior learning requires less than the full term of apprenticeship to acquire certification.

Journeyperson - A person who has acquired the knowledge and skills in a trade, occupation or craft as attested to by a provincial or territorial authority.

Organizations - The Apprenticeship Training Division works with a variety of organizations to develop apprenticeship training programs, skills upgrading programs, Trade Regulations, and examinations. These organziations include both organized labour and those working in a non-union environment.

Pre-Employment Graduate - A graduate from an approved post-secondary pre-employment program who wishes to register as an apprentice receives apprenticeship credit based on the successful completion of the pre-employment program.

Trade Qualifiers - Non-apprentices who may be eligible to challenge the certification examination if they meet the criteria as stated in Section 19 of the General Regulations under the *Apprenticeship and Trades Qualifications Act*. These applicants must supply references from two certified journeypersons and have their applications approved through a committee.

Statistical Data

New Registrations

932 new apprentices were registered during 1998/99. Of the 932 new apprentices, 872 are male and 60 are female. The 932 new apprentices represent a 13.1% increase in the number of new apprentices relative to 1997/98.

Apprentices registered in the Automotive Service Technician occupation account for 11.6% of all new apprentices registered during this reporting period. Construction Electrician accounts for 11.6%, Cook accounts for 11.8%, Carpenter accounts for 7.2%, and Plumber accounts for 7.2%. All other trades each account for 6% or less of the total, and as a whole, account for 50.6% of total new registrations.

New Registrations 1998-1999

TRADE	ACTUAL	PERCENTAGE
Automotive Service Technician	108	11.6%
Cook	109	11.8%
Carpenter	67	7.2%
Plumber	67	7.2%
Construction Electrician	108	11.6%
All Other Trades	472	50.6%

Cancellations

During this reporting period, 470 apprentices were cancelled from the Apprenticeship Program for various reasons.

Reinstatements

34 apprentices were reactivated to the Apprenticeship Program during 1998/99.

Completions (Graduates) of the Program

In 1998/1999 a total of 344 apprentices graduated from the Apprenticeship Program. Of the 344 apprentices, 320 graduated as journeypersons in the following designated trades. The remaining 24 Apprentices graduated from the In-plant Apprenticeship Program at Fleet Maintenance Facility Cape Scott.

Automotive Service Technician	55
Boilermaker	5
Bricklayer	5
Carpenter	28
Construction Electrician	41
Cooking	19
Farm Equipment Mechanic	1
Heavy Duty Equipment Mechanic	3
Industrial Electrician	1
Industrial Instrument Mechanic	2
Industrial Mechanic (Millwright)	17
Machinist	16
Motor Vehicle Body Repairer	7
Oil Burner Mechanic	26
Plumber	42
Powerline Technician	5
Refrigeration & Air Conditioning Mechanic	13
Sheet Metal Worker	3
Sprinkler System Installer	1
Steamfitter/Pipefitter	11
Steel Fabric (Fitter)	1
Truck and Transport Mechanic	11
Welder (A Level)	7
Fleet Maintenance Facility Cape Scott	24
Total	**344**

The 344 graduates represent a 28.8% increase in the number of graduates relative to 1997-1998.

Technical Training

During 1998/99, 1204 apprentices attended technical training at the Nova Scotia Community College and the University College of Cape Breton. In addition, 179 apprentices registered for technical training on the Internet through the Virtual Campus. This represents a significant increase in the numbers trained in 1997-1998. Please see table below.

Facility	1997-1998	1998-1999	Actual Change	Percentage of Change
NSCC	1051	990	-61	-6%
UCCB	169	214	45	27%
Virtual Campus	0	179	179	N/A
TOTAL	1220	1383	163	13.4%

Active Apprentices at Year End

On March 31, 1999, there were 3568 apprentices actively participating in the Apprenticeship Program. Of these 3568 active apprentices, 197 were female and 3371 were male. These represent an increase of 151 active apprentices or 4.4% over 1997 - 1998 figures.

Year	Male	Female	Total
1997 - 1998	3253	164	3417
1998 - 1999	3371	197	3568

Section 19 (Trade Qualifiers) Applications

Section 19 of the General Regulations under *the Apprenticeship and Trades Qualifications Act* provides the opportunity for long term practitioners to receive certification if they meet defined criteria:

- employed in the trade for the period set out in the Trade Regulations;
- recommended for a Certificate of Qualification by two persons who are competent in the trade and who have vouched for the candidate's skills and experience;
- competent in the skills of the trade, as determined by the Director;
- write and pass the certification examination.
-

During the fiscal year 1998/99, 385 trade qualifiers applied under Section 19 of the General Regulations for eligibility to write the interprovincial certification examination. Ad hoc Review Committees reviewed 502 files (117 from previous year); 412 were approved and 90 were denied. This represents a very large increase over the number of Section 19 applications processed in 1997 - 1998 (see table). This increase can be attributed to a more comprehensive review process introduced in 1998, more Division resources allocated to the process, and a higher level of activity by the Enforcement Section. It is estimated that each application requires 4 person days to process. See table below.

Applications	Fiscal Year 1997/1998	Fiscal Year 1998/1999	Percentage Increase
Processed	127	502	295%
Approved	98	412	320%
Denied	29	90	210%

The 502 applications processed in 1998 represents approximately 2008 person days of effort.

Examinations Written

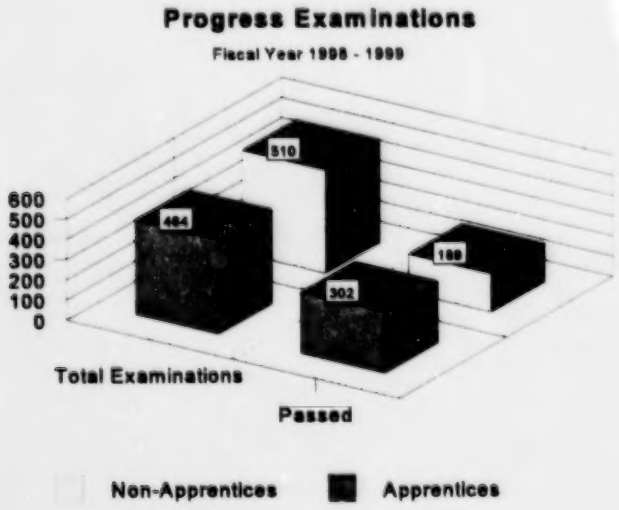
Total Examinations

During 1998/99, a total of 2020 clients wrote various apprenticeship progress and certification examinations. Of that amount, 974 clients wrote progress examinations and 1046 completed apprentices and trade qualifiers wrote certification examinations. This represents a 26.7% increase over last year's total (1594).

Examinations	Fiscal Year 1997/1998	Fiscal Year 1998/1999	Percentage Increase
Progress Examinations	865	974	12.6%
Certification Examinations	729	1046	43.5%
Total	1594	2020	26.7%

Progress Examinations

A total of 974 progress examinations were written during 1998/99. Apprentices wrote 464 examinations with a pass rate of 65% (302 passed). Non-apprentices, including pre-employment and placement candidates (challenge examinations to determine placement of candidate in the Apprenticeship Program), wrote 510 examinations with a pass rate of 37% (189 passed).



Certification Examinations

A total of 1046 clients wrote certification examinations during 1998/99. Completed apprentices wrote 506 examinations with a pass rate of 63% (319 passed). Trade qualifiers wrote 540 examinations with a pass rate of 57% (308 passed).

Certificates of Qualification Issued

Certificates are issued to apprentices who have successfully completed an apprenticeship program or to trade qualifiers who have met all the requirements of a trade and have passed the certification examination.

In 1998/99, 716 Certificates of Qualification (CQs) were issued representing an increase of 235 over 1997/98. Of these, 319 (45%) were issued to completed apprentices, and 308 (43%) were issued to trade qualifiers. The remaining 89 certificates were issued to Certificate of Qualification Holders from other jurisdictions who requested Nova Scotia certification.

Certificates Issued	Fiscal Year 1997/1998	Fiscal Year 1998/1999	Percentage Increase
Completed Apprentices	292	319	9%
Trade Qualifiers	189	308	63%
Certificate Holders from Other Jurisdictions	N/A	89	N/A
Total	481	716	49%

Since 1937, a total of approximately 50,000 Certificates of Qualification have been issued in the Province of Nova Scotia.

Partnerships and Stakeholders

The Apprenticeship Training Division actively pursues partnerships that lead to improvements in the Apprenticeship Program, provide enhanced benefits to the Nova Scotia economy, and engage more Nova Scotians in development and employment opportunities.

Provincial Apprenticeship Board

The Provincial Apprenticeship Board is responsible for advising the Province, through the Minister of Education and Culture, on all aspects of apprenticeship training and recommending policies that will improve the competitiveness of Nova Scotia employers and employees. The Board is considered to be the fundamental link between government, business, and industry. It is responsible for recommending the designation of new trades/occupations in Nova Scotia. The Board's key role is to promote and educate the public about apprenticeship so the Apprenticeship Program may continue to grow into the twenty-first century.

The Provincial Apprenticeship Board currently (as of July 22, 1999) has a total of eleven members, including a Chair and a Vice Chair. The length of member terms range from one to three years. Staggering the length of term provides continuity from year to year, while bringing in new members, new ideas, and different areas of expertise. (See Appendix 2)

One of the key new roles for the Board is to promote the Apprenticeship Program to the private sector. In carrying out this role, the Board is developing initiatives to meet with the stakeholders in Apprenticeship. The second key role for the Board is to consider and make recommendations for the designation of new apprenticeable occupations.

The Board has had discussions with the Hospitality, Health, and Software industries concerning possible new designations in these sectors.

In the past, the Provincial Apprenticeship Board accomplished the following:

- Pursued apprenticeship in new and emerging occupations with such groups as the Software Association of Nova Scotia and the Tourism Regional Industrial Training Committee
- Encouraged the development of alternate delivery methods of training for apprenticeship
- Conducted an in-depth survey on Apprenticeship training with 800 firms in Nova Scotia
- Held annual conferences on apprenticeship as well as regional "Open Houses"
- Reviewed the Nova Scotia *Apprenticeship and Trades Qualifications Act* as well as Acts from other provinces and territories in Canada and made recommendations to the Minister on revisions to the Act
- Printed and distributed a series of newsletters called *The Apprenticeship News*

- Promoted The Apprenticeship Program in Nova Scotia through a presentation to public school guidance counsellors in Bible Hill, NS
- Produced the first two in a series of apprenticeship posters and brochures for distribution across Nova Scotia

The Apprenticeship Program will provide universal access to a partnership between labour and management which will develop a competent and flexible workforce capable of meeting the changing needs of business and industry.

The Apprenticeship Training Division will continue to cooperate and collaborate with the Provincial Apprenticeship Board in promotional initiatives.

Canadian Council of Directors of Apprenticeship (CCDA)

The CCDA is vested with its authority by the Forum of Labour Market Ministers with responsibilities for Labour Market matters. It is responsible for the administration of the Interprovincial Red Seal Program. The mandate of the CCDA is to encourage the standardization of provincial/territorial training and certification programs and to provide greater mobility across Canada for skilled workers. Nova Scotia fully participates in the CCDA and the representative from Nova Scotia chairs the Products Committee, one of CCDA's three standing committees. This Committee is responsible for administering the process for the development of occupational analyses, training standards, interprovincial examinations and translation. It is also responsible for the activities of the Interprovincial Standards Examination Committee and provides the liaison mechanism between CCDA and ISEC.

The Apprenticeship Training Division will continue to be involved in and support national initiatives for apprenticeship.

Interprovincial Standards Examination Committee (ISEC)

Nova Scotia is an active member of the Interprovincial Standards Examination committee (ISEC). This working group is responsible for development, validation and revision of National Occupational Analyses (NOA's), training standards, interprovincial examinations and examination item banks under the guidance and direction of the Canadian Council of Directors of Apprenticeship (CCDA) Products Committee.

The Apprenticeship Training Division made a commitment to validate/weight a number of trades/occupations as well as facilitate two item bank workshops in 1998 - 1999.
Various validation sessions comprised of industry representatives were held in the following areas:
1) National Occupational Analyses - The following NOA's were validated by industry: Bricklayer, Cabinet Maker, Farm Equipment Mechanic, Industrial Instrument Mechanic, Insulator (Heat & Frost), Painter and Decorator, Recreation Vehicle Mechanic, and Truck and Transport Mechanic.

2) Interprovincial Examinations - The following interprovincial examinations were validated by industry: Automotive Painter, Boilermaker, Bricklayer, Carpenter, Cook, Oil Burner Mechanic, Sheet Metal Worker, Truck and Transport Mechanic, and Welder.
3) Table of Specifications - The following examination plans (table of specifications) were validated by industry: Electrical Rewind Mechanic and Heavy Duty Equipment Mechanic.

This obviously very large commitment to interprovincial standards requires the use of a large number of resources from the Apprenticeship Training Division and the reliance on Nova Scotia industry to voluntarily assist in the various validation exercises.

Techsploration

Techsploration provided young women with opportunities to explore trades and technology occupations while creating an awareness about the critical role of work in their lives. Techsploration, sponsored by Sable Offshore Energy Incorporated, was a joint initiative of the Nova Scotia Community College, WITT National Network (Women in Trades and Technology), and the Apprenticeship Training Division, Nova Scotia Department of Education & Culture.

Techsploration consisted of three main parts:
1) Career research model - Young women in school teams were assigned a female role model working in an in-demand occupation.

2) Techsploration Day - where all school teams participated in a one day conference to make presentations on their assigned careers and attended hands-on workshops.

3) Techsploration Goes To School - All teams made presentations to the student bodies of their school about their assigned career and role model. Teams also visited and made presentations at other participating schools.

The Apprenticeship Training Division made significant contributions to the Technical Program by providing financial assistance for newspaper advertising, printing of posters, and travel expenses. The Division also participated in theTechsploration Steering Committee and Public Relations Committee.

Techsploration was an enormous success and will be offered again in 1999/2000. The Apprenticeship Training Division will once again engage in this partnership.

Skills Canada Nova Scotia

Skills Canada Nova Scotia is a unique non-profit partnership of Educators, Government, Industry and Labour devoted to promoting and enhancing the value of professional trade & technical skills in youth. In March of 1999, the Apprenticeship Training Division partnered with Skills Canada Nova Scotia as a Gold sponsor of the 1999 Provincial Skills Competitions. These Olympic-style trades competitions are designed to promote and recognize the excellence of our Nova Scotia Apprentices, post-secondary and secondary students, their educators and our learning institutions. The competitions involve industry in the development and evaluation process, thus helping to connect young people to potential employers. Winners from the Provincial Competitions advanced to the National Skills Competition in Kitchener, Ontario, June 1-6, 1999. A team of 29 young people, including 10 high school students, competed nationally in areas such as Carpentry, Automotive Mechanical, Culinary Arts and Residential Electrical. A national bronze medal was won in Carpentry and silver in Electronics.

Support from the Apprenticeship Training Division included the following:

- Sending an Industrial Training and Certification Officer to the National Skills Competitions as an apprentice/student advisor for Team Nova Scotia.
- The Provincial Apprenticeship Board sponsored prizes of Red Seal Gear promotional clothing for winners in the Red Seal Trades at the Provincial Skills Competitions.
- Industrial Training and Certification Officers participated as judges, along with industry partners at the Provincial Skills Competitions.
- Donating office space including computer, phone and a fax facility to Skills Canada Nova Scotia
- The Acting Director sits on the Skills Canada Nova Scotia Board of Directors and advises on matters concerning Apprenticeship

Next year's goals include expanding the number of secondary trades competitions and getting more apprentices involved in participating in the year 2000 Skills Competition.

The Apprenticeship Training Division will continue to support Skills Canada Nova Scotia.

Pictou Landing First Nations Women's Carpenter Program

This initiative, undertaken by Pictou Landing First Nations Women, is designed to develop skilled carpenters for their community. Currently, with only one carpenter in the community and a demand for new buildings, it is an opportunity to train carpenters and provide access to apprenticeship training leading to employment for Aboriginal women.

The Apprenticeship program is four years in length and all training and work experience for the Aboriginal women will be provided on the Pictou Landing Reserve. Five native women are participating in the training program. They were selected from twenty-eight applicants based on interviews, aptitude testing suitability and educational level attained. The instructor in the program is a native carpenter journeyperson.

The apprenticeship agreement is between the five female apprentices and the Pictou Landing Band Council. This unique training program/employment opportunity provides the participants with wages while they work and learn.

Proposed building projects include the construction of a youth centre, homes, and numerous renovation projects.

The Apprenticeship Training Division provides ongoing support and counselling to the participants and Project Coordinator.

Joint Registration Agreements

In 1998/1999, the Apprenticeship Training Division worked with a number of organizations to develop better mechanisms leading to improved training and employment opportunities. It is the goal of the Apprenticeship Training Division to involve more employers and organizations in the Nova Scotia Apprenticeship Program. One way of facilitating involvement is to engage organizations in Joint Registration Agreements, in which the organization enters into an agreement with the Department of Education and Culture for the registration of apprentices to the organization. Consultations took place in 1998 - 1999 with the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers Local No. 752; Millwright and Machine Erectors Local Union 1178; United Association of Journeypersons and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, Locals 244, 682, and 56; and, the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers.

By March 31, 1999, agreements had been signed with the Ironworkers, Local 752 and the U.A. Locals 244, 682, and 56. It is anticipated the other two agreements will be signed in the fall of 1999.

These examples of partnerships, diverse and varied as they are, show strong linkages between the Apprenticeship Training Division, Nova Scotia youth, industry, labour organizations, and Aboriginal groups.

Initiatives

Accreditation

The Apprenticeship Training Division has developed an accreditation policy, guidelines and procedures, and a two-phase process to accredit training providers.

Apprenticeship training accreditation is a process by which the Apprenticeship Training Division evaluates and recognizes a training program as meeting pre-determined standards. Accreditation of apprenticeship programs is a form of voluntary compliance and is initiated by the training provider who makes formal application to the Apprenticeship Training Division.

The main purpose of accreditation is to assure apprentices, practitioners, employers, and the general public that a training program and its graduates meet a recognized standard. All training leading to certification in occupations designated under the *Nova Scotia Apprenticeship and Trades Qualifications Act* is eligible for accreditation. Apprentices who successfully complete accredited training programs may receive automatic recognition towards their Apprenticeship Program.

A national system of accreditation exists at the journeyperson level through the Interprovincial Standards Red Seal Program of the Canadian Council of Directors of Apprenticeship and is confirmed by a Red Seal endorsement.

Accreditation is a step towards fostering uniformity of training, examination and certification.

AIMS to ACIS

Apprenticeship Information Management System to
Apprenticeship Certification Information System

In November of 1994, an Atlantic Apprenticeship Information Management System committee was formed, consisting of representatives appointed by the Directors of Apprenticeship from Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island and Manitoba. The mandate of the committee was to research, study and recommend the feasibility of an Atlantic Provinces apprentice and journeyperson information management system. After six months of proceeding through the various stages of a committee defined work plan, a recommendation was made to the Association of Atlantic Directors of Apprenticeship and Board Chairs that the concept of an Atlantic wide system was a sound, efficient, and cost-effective venture to store and share information.

It was subsequently decided that the initiative would be a joint venture by the Provinces of New Brunswick, Nova Scotia, and Manitoba, and that the solution would be sensitive to the requirements of other jurisdictions to maximize the probability that they would elect to adopt or integrate with the system at a later date.

In January of 1998, the Provinces of New Brunswick, Nova Scotia, and Manitoba, through a Memorandum of Understanding, agreed to cooperate in the development of the Apprenticeship and Certification Information System (ACIS). The proposed ACIS will provide increased efficiency and quality in apprenticeship and certification services. To reach this goal, New Brunswick, Nova Scotia and Manitoba partnered with DMR, an international company with offices in Halifax and Fredericton. The partnership sought the most appropriate integrated solution and then developed the solution. It is in the process of implementing the solution and establishing a program for refreshing the application and its supporting technology for the future.

The goals of ACIS are to provide an environment and method of administering the tracking of apprentices and other related processes that will result in benefits to the Provinces and their clients. The specific goals of ACIS are to:

- provide more cost-effective services
- eliminate overlap and duplication between the provinces
- facilitate mobility of information between the provinces
- provide better service to clients
- improve operational efficiency and effectiveness
- reduce maintenance and support costs

ACIS Project History

Procurement	October 1997 - December 1997
Startup and Initial Phases	January 1998 - April 1998
Release I (90% complete)	May 1999 - Present
Projected Cost of Project	$2.1 million plus additional costs for Interface necessary to communicate with other partners
Nova Scotia's Contribution	$700,000
Completion Date	Implementation is scheduled to be completed in Nova Scotia by September 30, 1999

Alternate Delivery of Apprenticeship Training

In response to industry requests, apprenticeship training programs have been redesigned to provide more flexibility and accessibility to accommodate the needs of employers and apprentices. The training in the refreshed apprenticeship programs will be offered in a course-based format (each course will be a thirty hour credit) that will be easily adaptable to delivery in the classroom or through the Internet. Classroom training will continue to be instructor-led in an interactive learning environment. (See Appendix 3)

The goal of the Apprenticeship Training Division is to ensure the transition to the course-based delivery format is seamless. The updated curricula means the learning outcomes in the apprenticeship programs have been enhanced to meet industry's current requirements. Whether the apprentice began under the modular format of delivery or in an instructor-led topical format, the course-based system of delivery will positively impact the apprentice's learning.

Two options are currently available for the delivery of course-based apprenticeship programs:

1) Classroom Delivery - Classroom training will continue to be instructor led in an intensive learning environment. Each course will be thirty hours in length and the tuition will be $40.00 per course.

2) Internet Delivery through the Virtual Campus - The Virtual Campus was created through a partnership with Human Resources Development Canada, Department of Education and Culture, and the Nova Scotia Community College. All course-based apprenticeship programs will be available on the Internet through the Virtual Campus at a cost to the apprentice of $65.00 per course. Attached is a very detailed description of the Virtual Campus, its programs, and its philosophy of training. See appendix 1.

In September 1999, **first year** apprentices in the renewed course-based programs will begin their training in a course-based format, whether delivered in a classroom or through the Internet. **Second year** apprentices are also strongly encouraged to register in apprenticeship courses related to their level of training, whether in the classroom or via the Internet. **Third and fourth** year apprentices are also encouraged to make the transition to course based delivery, but they will have the option until September 2001 to complete their training through the block release or modular system of delivery. Beginning in September 2001, all apprenticeship training will be delivered in a course-based format only.

Apprenticeship Provincial Examination Development

During the year, the following apprenticeship progress examinations were developed and validated:

Construction Electrician/Industrial Electrician	Levels 1, 2
Industrial Mechanic	Levels 1, 2, 3
Ironworker	Level 1

Curriculum Development and Validation

It is always a challenge to ensure that the defined outcomes in apprenticeship programs align with the needs of the industries who support apprenticeship through their involvement in various consultations and workshops, and the hiring of apprentices. Nova Scotia has 52 designated trades, of which 44 are Red Seal trades. This means that each of these 44 trades has gained a common acceptance across Canada and has identified a list of commonly accepted skills within the trade. This identification is very clearly defined in a National Occupational Analysis for each Red Seal Trade.

In the development and renewal of apprenticeship curriculum and examinations, the National Occupational Analysis becomes the base document for the definition of program outcomes and skills requirements. During the year, curriculum development/renewal was undertaken in 19 apprenticeship programs. See table below:

Trade	Validation Complete	Validation In Progress	Curriculum Development
Automotive Service Technician		✔	
Carpenter		✔	
Construction Electrician		✔	
Cook	✔		
Gas Fitter	✔		
Heavy Duty Equipment Mechanic			✔
Industrial Electrician		✔	
Industrial Mechanic (Millwright)			✔
Machinist		✔	
Motor Vehicle Body Repairer			✔
Oil Burner Mechanic		✔	
Plumber		✔	
Stationary Engineer 4th Class	✔		
Stationary Engineer 3rd Class	✔		
Refrigeration Plant Operator	✔		
Steamfitter/Pipefitter		✔	
Steel Fabricator			✔
Truck and Transport Mechanic			✔
Welder			✔

It is anticipated that curriculum will be validated and implemented in 14 apprenticeship programs prior to December 1999.

Curriculum - Industry Validation Schedule

Trade	Letters of Interest Mailed	Responses Received	Curriculum Mailed	Feedback Required
Automotive Service Technician	May 6, 1999	May 31, 1999	June 3, 1999	July 12, 1999
Carpenter	May 6, 1999	May 31, 199	June 4, 1999	July 12, 1999
Cook	Validation complete			
Construction Electrician	May 6, 1999	May 31, 1999	June 3, 1999	July 12, 1999
Gas Fitter	Validation complete			
Heavy Duty Equipment Mechanic	Curriculum development in progress			
Industrial Electrician	May 6, 1999	May 31, 1999	June 2, 1999	July 12, 1999
Industrial Mechanic (Atlantic Review Workshop to be held in November 1999)	Aug. 2, 1999	Aug. 20, 1999	Aug. 30, 1999	Sept. 24, 1999
Machinist (Atlantic Review Workshop to be held in October 1999)	May 6, 1999	May 31, 1999	June 4, 1999	July 12, 1999
Motor Vehicle Body Repairer	Aug. 2, 1999	Aug. 20, 1999	Aug. 30, 1999	Sept. 24, 1999
Oil Burner Mechanic	May 6, 1999	May 31, 1999	June 3, 1999	July 12, 1999
Plumber *	June 29, 1999	July 20, 1999	July 27, 1999	Aug. 31, 1999
Refrigeration Plant Operator	Validation complete			
Stationary Engineer (4th)	Validation complete			
Stationary Engineer (3rd)	Validation complete			
Steamfitter / Pipefitter *	June 29, 1999	July 20, 199	July 27, 1999	Aug. 31, 1999
Steel Fabrication (Atlantic Review Workshop to be held in December 1999)	Curriculum development in progress			
Truck & Transport Mechanic	Curriculum development in progress			
Welder (Atlantic Review Workshop to be held in December 1999)	Curriculum development in progress			

* Atlantic Review Workshop was held the week of May 17 and participants consisted of Industrial Representatives and Instructors with dual certification in both the Plumber and Steamfitter/Pipefitter trades.

Curriculum development/renewal continues on several fronts:

1) Nova Scotia Community College - Through contract, curriculum is being developed/renewed in several apprenticeship programs. They include Plumber, Carpenter, Oil Burner Mechanic, Machinist, Ironworker, and Welder.

2) Refocusing Apprenticeship Project - Work is nearing completion on Automotive Service Technician, Cook, Construction Electrician, Industrial Electrician, and Stationary Engineer.

3) University College of Cape Breton (UCCB) - Work is nearing completion on Industrial Mechanic, Motor Vehicle Body Repairer, Heavy Duty Equipment Mechanic, and Truck and Transport Mechanic.

4) Atlantic Directors of Apprenticeship and Board Chairs - A joint initiative has begun to develop Atlantic common curriculum for all apprenticeship programs. A working group consisting of representatives from each of the four Atlantic Provinces was mandated with this task. To date, common curriculum and has been developed for both the Plumber and Steamfitter/Pipefitter trades. The working group plans to complete development of common curriculum in the Industrial Mechanic, Machinist, Steel Fabrication and Welder trades prior to December 1999.

A three-step curriculum validation process has been implemented. In the initial stage, the Apprenticeship Training Division contacts various industry representatives via mail to request participation in a curriculum review. The second stage consists of the draft curriculum being forwarded for review and feedback. In the third and final stage, the revised document will be forwarded to each participant. If feedback warrants further discussion, a one-day meeting of industry representatives will be arranged.

Gas Fitter Training and Certification

Although the Gas Fitter trade was designated in 1983 in anticipation of natural gas coming to Nova Scotia at that time, all activities associated with implementing gas training and certification ceased when the reality did not match the perception. Since the reality has resurfaced, the Apprenticeship Training Division has worked diligently with industry representatives, training providers, other regulators (Department of Labour), and those companies who hope to distribute the natural gas, to develop Trade Regulations, certification requirements, and training plans.

Trade Regulations have been developed and were made effective through Order-in-Council February 3, 1999. These regulations were developed after many consultations with industry representatives over several months. Training is currently in place at Akerley Campus of the Nova Scotia Community College for Gas Fitters at the pre-employment level. This training is being delivered to students who will attempt to secure employment in Nova Scotia's natural gas industry. Further training programs for persons who have some experience in the gas industry will soon be available. Currently, apprenticeship training is not available.

The Apprenticeship Training Division, in consultation with those in the industry, has identified the program of training for apprentices. Representatives of the Division have worked with training providers, industry representatives and Technical Standards and Safety Authority (TSSA) of Ontario to define the certification instruments and standards. TSSA has agreed to share its database with Nova Scotia so that Nova Scotia will be able to implement certification examinations at the earliest opportunity. However, the Apprenticeship Training Division is awaiting changes in Fuel Safety Regulations by the Department of Labour before certification examinations can be finalized.

The Division typically works closely with industry, but the lack of an active natural gas industry proved problematic. After a series of full day sessions with available industry representatives, the Division presented a framework of trade regulations to serve as a departure point, a program and a certification standard. Industry by this time had already determined that the path of training would be a Gas Technician program with three levels of certification, developed in Ontario by the Technical Standards and Safety Authority (TSSA).

Not only was the Division required to develop training standards for those entering the occupation, it was also necessary to define standards for people already working in related industries (i.e. plumbers, steamfitters/pipefitters). It is important to avoid duplication of training in areas where practitioners have already acquired related training and/or experience. Consultations were essential with various trade groups, the Nova Scotia Community College and the Department of Labour to determine equivalencies between the training and experience acquired in related industries and the training requirement of the emerging industry. Consensus has recently been achieved on an equivalency chart of credits for those already holding certification in a related trade. Also, there will be an ongoing need to provide individual assessments for those who have additional qualifications.

Ongoing Initiatives

- **Industry Review Board** - The Apprenticeship Training Division wants to create an ad hoc board comprised of members active in the industry who can work with the Division to review and approve applicants for certification examinations.
- **Equipment & Space.** The Division will work with industry to find the space and equipment needed to conduct practical certification examinations. There has been dialogue with the NSCC, the Petroleum Directorate and the United Association of Journeypersons and Apprentices of the Plumbing and Pipefitting Industry.
- **Training Partners.** The Division wants to engage with training providers to offer programs that are flexible and accessible, especially for those needing skills upgrading or skills enhancement. Programs will also have to be provided at various physical locations.
- **Virtual Campus.** Gas Fitter training will be made available through the Virtual Campus.
- **Seamless Transition.** The challenges associated with introducing and planning supports for this industry have been relatively complex. It is the responsibility of all represented stakeholders to de-mystify the situation for those in industry who want to take advantage of the opportunities for employment.

- **Apprenticeship Program.** In contrast with the 6-month program established by the NSCC, apprenticeship training normally takes the form of a series of courses punctuated by stints in the workforce to apply what has been learned. While the College's program will fill longer terms needs, the priority is to get journeypersons with current related skills certified.
- **Continued Collaboration.** The Apprenticeship Training Division wants to continue working with industry, training providers, regulatory bodies and those with current skills to make sure that the curriculum remains current and relevant.

Progress Record Book Development

A new progress record book for the Ironworker trade was developed by a committee of union representatives and industry and completed in March 1999. The performance objectives were based on the National Occupational Analysis. The committee determined the level of skill required for each objective.

A joint initiative has begun to design and develop Atlantic common progress record books for all apprenticeship programs. To date, progress record books have been developed for Automotive Service Technician, Plumber and Steamfitter/Pipefitter trades. By December 1999, progress record books for Industrial Mechanic, Machinist, Steel Fabricator and Welder trades will be developed.

Trades Under Consideration for Designation

To remain current with the labour market needs of industry, the Apprenticeship Training Division must be cognizant of expanding and/or emerging occupations and strive to match apprenticeship and certification services to these needs. Occupations currently under consideration for designation include Alarm and Security and fifteen (15) designations in the coal miner occupation currently administered by the Department of Labour. Research continues into the occupation of Classical Animation to determine its fit for apprenticeship designation.

Public Relations Activities

A number of initiatives were undertaken to strengthen the profile of the Apprenticeship Program and increase public awareness:

Newsletter - The Provincial Apprenticeship Board produced the Apprenticeship newsletter in December, 1997. This newsletter was published and distributed in February, 1998.

Promotional Material - In an effort to increase public awareness and communications between all partners, the Apprenticeship Training Division produced an informational Apprenticeship Calendar entitled Building the Future, a Training and Examination Schedule, and brochures targeting consumers, employers and prospective apprentices.

The Apprenticeship Calendar and the Training and Examination Schedule were distributed to apprentices, employers, trade unions, schools, colleges, etc.

Toll Free Telephone Line - The Apprenticeship Training Division has a toll free telephone number: 1-800-494-5651. This number can be accessed from anywhere within Nova Scotia.

Website - The Apprenticeship Training Division is now on the World Wide Web. Visit our site at (http://www.ednet.ns.ca/educ/apprenticeship). In addition, general inquiries can be made through our e-mail address at (apprenticeship@gov.ns.ca).

Conclusion

1998 - 1999 was a time of transition and change for the Apprenticeship Training Division. Work progressed on many projects, both provincially and interprovincially. Employees of the Apprenticeship Training Division have adapted well to these changes and developed both personally and professionally as they met new challenges.

Currently, the Apprenticeship Training Division is reviewing all of its operational policies through a committee consisting of staff within the Division. The end goal is to make Nova Scotia's Apprenticeship Program the most advanced program in Canada. Continuous review of our procedures, and refinement as necessary, ensures that we offer a high level of service to our clients.

Activity within the Apprenticeship Training Division remains at a very high level. Service to our clients, customers, and partners has improved. The Division actively participates in national endeavours and seeks partnerships to improve its operation, with the result of providing a high calibre training program to ensure Nova Scotia's tradespeople are among the best in the world.

Appendix 1

Nova Scotia Designated Trades

Check marks (✓) indicate that certification is required.

BOLD TYPE indicates a Red Seal Occupation.

Journeypersons with Red Seal certification can work across provincial borders without further examination.

Appliance Service Technician
Automotive Painter
Automotive Service Technician ✓
Baker
Boilermaker
Bricklayer ✓
Cabinet Maker
Carpenter
Cement Finisher
Construction Electrician ✓
Cook
Electrical Rewind Mechanic
Electronics Technician -
Consumer Products
Farm Equipment Mechanic
Floorcovering Installer
Gas Fitter
Glazier
Hairstylist
Heavy Duty Equipment Mechanic
Industrial Electrician
Industrial Instrument Mechanic
Industrial Mechanic (Millwright)
Insulator (Heat and Frost)
Ironworker (Generalist)
Lather (Interior Systems Mechanic)
Locksmith
Machinist
Marine Fitter
Mine Electrician
Mine Mechanic
Mobile Crane Operator
Motorcycle Mechanic
Motor Vehicle Body Repairer
(Metal and Paint)
Motor Vehicle Repair -
Service Station Mechanic ✓
Oil Burner Mechanic ✓
Painter and Decorator
Partsperson
Plumber ✓
Powerline Technician
Recreation Vehicle Mechanic
Refrigeration and
Air Conditioning Mechanic ✓
Restoration Stone Mason
Roofer
Sheet Metal Worker
Sprinkler-System Installer
Stationary Engineer ✓
Steamfitter/Pipefitter
Steel Fabricator (Fitter)
Tool and Die Maker
Truck-Trailer Repairer
Truck and Transport Mechanic ✓
Welder

Appendix 2

PROVINCIAL APPRENTICESHIP BOARD MEMBER LIST

Mr. George MacLean (Board Chair)
Coordinator, Apprenticeship
Central Office, Institute of Technology
Expiry Date: 10/01
Acts and Governance Subcommittee

Mr. Darrell Garland
Self Employed Electronics Technologist
Expiry date: 10/00
Linkages and Industry Subcommittee

Mr. Michael Bren
Lingan Training Supervisor
Nova Scotia Power
Expiry Date: 10/00
Acts and Governance Subcommittee

Ms. Marilynn Morrison
High School Teacher (Retired)
Expiry Date: 04/00
Linkages and Industry Subcommittee

Mr. David Thomson
Managaer of Employee Relations
Halifax Shipyard Limited (HSL)
Expiry Date: 10/00
Acts and Governance Subcommittee

Mr. Bob Tobin
Executive Director
Health Industry Sector Council
Expiry Date: 04/00
Linkages and Industry Subcommittee

Mr. Peter Greer (Vice Chair)
Financial Secretary and Business Representative
United Brotherhood of Carpenters and Jointers of America
Expiry Date: 04/00
Marketing & Communications Subcommittee

Mr. Gary Jennex
General Manager
Able Electric Limited
Expiry Date: 04/00
Linkages and Industry Subcommittee

Mr. Charles Henman
Supervisor - Technicians and Apprentices
Carroll Pontiac Buick Ltd.
Expiry Date: 10/00
Marketing & Communications Subcommittee

Mr. Paul Christie
Manager, Department of Facilities Management
Dalhousie University
Expiry Date: 10/99
Linkages and Industry Subcommittee

Ms. Christene McInnis
Quality Assurance Coordinator,
Physical Plant
Saint Francis Xavier University
Expiry Date: 04/00
Marketing & Communications Subcommittee

VIRTUALLY EVERYWHERE...

The Virtual Campus of the Nova Scotia Community College

Contact Us...

In Person:	**5685 Leeds Street, Halifax, NS, Canada**
By Mail:	**PO Box 1153, 5685 Leeds Street, Halifax, NS, Canada, B3J 2X1**
By Phone:	**(902) 491-6774**
Toll Free:	**1-877-491-6774**
By Fax:	**(902) 491-4835**
By Email:	**"office@access.nscc.ns.ca"**
WWW:	**http://access.nscc.ns.ca**

NSCC
NOVA SCOTIA COMMUNITY COLLEGE
Education that **Works**

PROGRAMMING AVAILABLE

Apprenticeship Programs Currently Available

- Automotive Service Technician
- Cook
- Construction Electrician
- Industrial Electrician
- Power Engineer (4th Class)
- Power Engineer (3rd Class)
- Refrigeration Plant Operator (2nd Class)

Apprenticeship Programs Available September 1999

- Carpenter
- Plumber
- Machinist
- Oil Burner Technician
- Gasfitter

Extension Courses Currently Available

- WHMIS
- Occupational Health and Safety
- Compressor Plant Operator

Note: The courses and/or programs listed as available for September are subject to change. Please contact your local Campus of Nova Scotia Community College for additional information.

DELIVERY METHODS

The Virtual Campus is the central delivery structure for a comprehensive "Alternate Delivery Model" of education and training that has been established at Nova Scotia Community College. The alternate delivery approach means that many different types of learning methods will be utilized. Some of these methods will be synchronous, during shared learning times, others will be asynchronous during individually timed collaborative efforts. Such a flexible approach allows learners to study at the time, place and pace of their choosing using a variety of methods. Alternate delivery is a preferred option for today's busy learners who wish to increase their knowledge and skills without having to sacrifice their jobs, home life, or be forced to lose wages or seniority. A commitment to the alternate delivery approach means that a blend of educational methods will be utilized to best meet the needs of learners.

Currently, Nova Scotia Community College has the capability to deliver courses utilizing a number of distance delivery formats:

- ***audio conferencing:*** *synchronous course interaction between learners and the instructor utilizing auditory means (i.e., conference call).*
- ***audio-graphics conferencing:*** *synchronous course interaction between learners and the instructor utilizing a conference call with graphical information through a shared interactive whiteboard.*
- ***video conferencing:*** *synchronous course interaction between learners and the instructor utilizing sound and video transfer of information.*
- ***streamed video learning:*** *asynchronous course interaction between learners and the instructor utilizing pre-recorded sound and video broadcast by streaming over the Internet.*
- ***computer-mediated conferencing:*** *asynchronous course interaction between learners and the instructor utilizing a web-based electronic bulletin board to post/respond to messages and questions.*
- ***web-based training:*** *self-directed study over the Internet utilizing instructor-created learning materials and following outlined learning activities.*
- ***Online testing:*** *including randomly generated multiple choice questions, math questions, case studies, assignments and skills evaluations.*

GENERAL INFORMATION

The Virtual Campus is a Nova Scotia Community College Campus that exists on the Internet. Taking advantage of the most current communications technologies, a "Virtual Campus" has been established that allows students to access their courses through an Internet-connected computer. The "Virtual Campus" centralizes the delivery of programs and provides common delivery mechanisms. The Virtual Campus is known as the ACCESS.Campus: **ACCESS** is an acronym for "**A**lternate **C**ommunity **C**ollege **E**ducational **S**trategie**S**." The Virtual Campus is located on the Internet, as opposed to an actual physical building on a piece of land. The address of the ACCESS.Campus is designated by a Uniform Resource Locator (URL) which is: http://access.nscc.ns.ca.

The best way to see what the Virtual Campus is all about is to take a virtual tour of the Campus. The Campus has been created using a college metaphor: everything that you would have on a physical campus, has been programmed into the Virtual Campus. There are doors leading to different campus areas and buildings for each of the streams of college programming.

Benefits of the Virtual Campus

✔	***Relevant***	*Education and Training are delivered using competency-based courses.*
✔	***Flexible***	*A diversity of delivery methods (i.e., web-based, online conferencing, face to face, distance education, part-time).*
✔	***Accessible***	*Improves access and service to all clients (the Campus is accessible wherever there is an Internet-connected computer).*
✔	***Economical***	*Reduces financial burden on clients and external funding sources as learners access their courses around their own life requirements.*